

PATENT COOPERATION TREATY

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From the INTERNATIONAL SEARCHING AUTHORITY

<p>To: HADASSA WATERMAN G.E. EHRLICH (1995) LTD. 11 MENACHEM BEGIN STREET, RAMAT GAN, ISRAEL 52521</p>	<div style="border: 1px solid black; padding: 5px; display: inline-block;"> RECEIVED 26 NOV 2007 32000 G.E. EHRLICH (1995) LTD. </div>	<h2 style="text-align: center;">PCT</h2> <p style="text-align: center;">INVITATION TO PAY ADDITIONAL FEES AND, WHERE APPLICABLE, PROTEST FEE</p> <p style="text-align: center;">(PCT Article 17(3)(a) and Rule 40.1 and 40.2(e))</p>
<p>Applicant's or agent's file reference 32000</p>		<p>PAYMENT DUE within ONE MONTH from the above date of mailing</p>
<p>International application No. PCT/IL06/00795</p>		<p>International filing date (day/month/year) 09 July 2006 (09.07.2006)</p>
<p>Applicant FULCRUM SP LTD.</p>		

1. This International Searching Authority

(i) considers that there are 60 (number of) inventions claimed in the international application covered by the claims indicated below/on an extra sheet:
Please See Continuation Sheet

(ii) therefore considers that the international application does not comply with the requirement of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated below/on an extra sheet.
Please See Continuation Sheet

(iii) ☐ has carried out a partial international search (see Annex) ☒ will establish the international search report on those parts of the international application which relate to the invention first mentioned in claims Nos.: 1,2,5-11,19-25 and 28-41

(iv) will establish the international search report on the other parts of the international application only if, and to the extent to which, additional fees are paid.

2. Consequently, the applicant is hereby invited to pay, within the time limit indicated above, to pay the amount indicated below:

<u>\$1,000.00</u>	X <u>59</u>	= <u>\$59,000.00</u>
Fee per additional invention	number of additional inventions	total amount of additional fees/currency

3. The applicant is informed that, according to Rule 40.2(c), the payment of any additional fees may be made under protest, that is, a reasoned statement to the effect that the international application complies with the requirement of unity of invention or that the amount of the required additional fees is excessive, where applicable, subject to the payment of a protest fee.

Where the applicant pays additional fees under protest, the applicant is hereby invited, within the time limit indicated above, to pay a protest fee (Rule 40.2(e)) in the amount of _____ (amount/currency)

Where the applicant has not, within the time limit indicated above, paid the required protest fee, the protest will be considered not to have been made and the International Searching Authority will so declare.

4. ☐ Claim(s) Nos. _____ have been found to be unsearchable under

<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P O Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201</p>	<p>Authorized officer <i>Kathleen Bragdon</i> Kathleen Bragdon Telephone No. 571-272-1600</p>
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INVITATION TO PAY ADDITIONAL FEES
AND, WHERE APPLICABLE, PROTEST FEE

International application No.
PCT/IL06/00795

This International Search Authority has found 60 inventions claimed in the International Application covered by the claims indicated below:

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid

Group 1, claim(s) 1-2, 5-11, 19-25 and 28-41, drawn to an isolated polypeptide comprising an amino acid sequence of an SP1 polypeptide, said amino acid sequence being modified to be in a reversible molecular association with a substance, relating to the polypeptide of SEQ ID NO: 2.

Groups 2, 3, 4 - -29, claim(s) 1-2, 5-11, 19-25 and 28-41, drawn to an isolated polypeptide comprising an amino acid sequence of an SP1 polypeptide, said amino acid sequence being modified to be in a reversible molecular association with a substance, relating to the polypeptide of SEQ ID NO: 3, 4, 5 - -30, respectively

Groups 30, 31, 32 - -58, claim(s) 3-4, drawn to an isolated polynucleotide of Claim 1 including the nucleic acid comprising a nucleic acid sequence encoding a polypeptide having an amino acid sequence as set forth in SEQ ID NO: 2, 3, 4 - -30, respectively.

Groups 59, claim(s) 12-13, 19-27, 32-34 and 36-37, drawn to a method of delivering a therapeutic, diagnostic or cosmetic agent to a subject in need thereof, the method comprising administering effective amount of the composition of matter of any of claims 6 or 7.

Groups 60, claim(s) 14-28, 30, 32-37, drawn to a method of stabilizing a substance or enhancing the solubility of a substance in a solution, the method comprising contacting the substance with a modified SP1 polypeptide and/or contacting a solvent.

1. This International Searching Authority considers that the international application does not comply with the requirements of unity of invention (Rules 13.1, 13.2 and 13.3) for the reasons indicated below:

The inventions listed as Groups 1-60 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The inventions are linked by the technical feature of an isolated modified polypeptide comprising an amino acid sequence of an SP1 polypeptide to be in a reversible molecular association with a substance. However, this technical feature is not special because it does not constitute an advance over the prior art by Zhang et al. (1998, The Journal of Biological Chemistry, vol. 273, pages 12281-12287). Zhang et al. disclose an isolated active site mutant of protein tyrosine phosphatases (i.e., PTPase with D181A mutation) as evidenced by the kinetic parameters of PTPase shown in Table 1, page 12283. The mutant PTPase by Zhang et al. was stable enough to be used in the kinetic study; thus, it is encompassed by the instant SP1, which is "referred to herein as stable protein (see top of instant specification page 1). The PTPase of Zhang et al. also have sequence modification and have shown a reversible binding with a substance Suramin (see top of left column, page 12283). Thus, the mutant PTPase of Zhang et al. meets all limitations of Claim 1, which is SP1 with modified amino acid sequence and having reversible molecular association with a substance. The invention of Group 1, a first product, requires as its technical feature of modified SP1 and relating to SEQ ID NO: 2. This technical feature is not required by Groups 2-58 by virtue of distinct structure having distinct sequence. Groups of 59-60 are method compared to the product of Group 1. Thus, the Groups 1-60 lack the unity of invention because the invention of Group 1, a first product, requires as its technical feature, wherein the technical feature is not special. Thus, Groups 1-IV do not relate to a single general inventive concept.